AMENDMENTS TO THE CLAIMS:

Please amend claims 1 and 2, as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently amended): A thermoelectric element comprising:

a thin film of p-type thermoelectric material,

a thin film of n-type thermoelectric material, and

the thin film of p-type thermoelectric material and the thin film of n-type thermoelectric material being formed on the electrically insulating substrate and being electrically connected,

(i) the p-type thermoelectric material comprising at least one complex oxide selected from the group consisting of:

~~complex oxides represented by Formula (1): $Ca_aA^{\dagger}_bCo_cA^{\ddagger}_dO_e$, wherein $A^{\dagger}$ is one or more elements selected from the group consisting of Na, K, Li, Ti, V, Cr, Mn, Fe, Ni, Cu, Zn, Pb, Sr, Ba, Al, Bi, Y, and lanthanoids; $A^{\ddagger}$ is one or more elements selected from the group consisting of Ti, V, Cr, Mn, Fe, Ni, Cu, Ag, Mo, W, Nb, and Ta; $2.2 \leq a \leq 3.6$; $0 \leq b \leq 0.8$; $2.0 \leq c \leq 4.5$; $0 \leq d \leq 2.0$; and $8 \leq e \leq 10$, and~~

complex oxides represented by Formula (2): $Bi_fPb_gM^1_hCo_iM^2_jO_k$, wherein M^1 is one or more elements selected from the group consisting of Na, K, Li, Ti, V, Cr, Mn, Fe, Ni, Cu, Zn, Pb, Ca, Sr,

Ba, Al, Y, and lanthanoids; M^2 is one or more elements selected from the group consisting of Ti, V, Cr, Mn, Fe, Ni, Cu, Ag, Mo, W, Nb, and Ta; $1.8 \leq f \leq 2.2$; $0 \leq g \leq 0.4$; $1.8 \leq h \leq 2.2$; $1.6 \leq i \leq 2.2$; $0 \leq j \leq 0.5$; and $8 \leq k \leq 10$; and

(ii) the n-type thermoelectric material comprising at least one complex oxide selected from the group consisting of:

complex oxides represented by Formula (3): $Ln_mR^1{}_nNi_pR^2{}_qO_r$, wherein Ln is one or more elements selected from the group consisting of lanthanoids; R^1 is one ore more elements selected from the group consisting of Na, K, Sr, Ca, and Bi; R^2 is one or more elements selected from the group consisting of Ti, V, Cr, Mn, Fe, Co, Cu, Mo, W, Nb, and Ta; $0.5 \leq m \leq 1.7$; $0 \leq n \leq 0.5$; $0.5 \leq p \leq 1.2$; $0 \leq q \leq 0.5$; and $2.7 \leq r \leq 3.3$;

~~complex oxides represented by Formula (4): $(Ln_sR^3{}_t)_2Ni_uR^4{}_vO_w$, wherein Ln is one or more elements selected from the group consisting of lanthanoids; R^3 is one or more elements selected from the group consisting of Na, K, Sr, Ca, and Bi; R^4 is one or more elements selected from the group consisting of Ti, V, Cr, Mn, Fe, Co, Cu, Mo, W, Nb, and Ta; $0.5 \leq s \leq 1.2$; $0 \leq t \leq 0.5$; $0.5 \leq u \leq 1.2$; $0 \leq v \leq 0.5$; and $3.6 \leq w \leq 4.4$;~~

complex oxides represented by Formula (5): $A_xZn_yO_z$, wherein A is Ga or Al; $0 \leq x \leq 0.1$; $0.9 \leq y \leq 1$; and $0.9 \leq z \leq 1.1$; and

complex oxides represented by Formula (6): $Sn_{xx}In_{yy}O_{zz}$, wherein $0 \leq xx \leq 1$; $0 \leq yy \leq 2$; and $1.9 \leq zz \leq 3$.

Claim 2 (Currently amended): The thermoelectric element according to Claim 1, wherein the p-type thermoelectric material comprises at least one complex oxide selected from the group consisting of ~~complex oxides represented by the formula: $Ca_aA^{\dagger}_bCo_4O_e$, wherein $A^{\dagger}$ is one or more elements selected from the group consisting of Na, K, Li, Ti, V, Cr, Mn, Fe, Ni, Cu, Zn, Pb, Sr, Ba, Al, Bi, Y, and lanthanoids; $2.2 \leq a \leq 3.6$; $0 \leq b \leq 0.8$; and $8 \leq e \leq 10$, and~~ complex oxides represented by the formula: $Bi_fPb_gM^1_hCo_2O_k$, wherein M^1 is one or more elements selected from the group consisting of Sr, Ca and Ba; $1.8 \leq f \leq 2.2$; $0 \leq g \leq 0.4$; $1.8 \leq h \leq 2.2$; and $8 \leq k \leq 10$;

the n-type thermoelectric material comprises at least one complex oxide selected from the group consisting of complex oxides represented by the formula: $Ln_mR^1_nNiO_r$, wherein Ln is lanthanoid; R^1 is one or more elements selected from the group consisting of Na, K, Sr, Ca, and Bi; $0.5 \leq m \leq 1.2$; $0 \leq n \leq 0.5$; and $2.7 \leq r \leq 3.3$, ~~complex oxides represented by the formula: $(Ln_sR^3_t)_2NiO_w$, wherein Ln is lanthanoid; R^3 is one or more elements selected from the group consisting of Na, K, Sr, Ca, and Bi; $0.5 \leq s \leq 1.2$; $0 \leq t \leq 0.5$; and $3.6 \leq w \leq 4.4$,~~ and complex oxides represented by the formula: $Ln_xR^5_yNi_pR^6_{q'}O_{r'}$, wherein Ln is lanthanoid; R^5 is one or more elements selected from the group consisting of Na, K, Sr, Ca, Bi, and Nd; and R^6 is one or more elements selected from the group consisting of Ti, V, Cr, Mn, Fe, Co, and Cu; $0.5 \leq x \leq 1.2$; $0 \leq y \leq 0.5$; $0.5 \leq p \leq 1.2$; $0.01 \leq q' \leq 0.5$; and $2.8 \leq r' \leq 3.2$.

Claim 3 (Original): The thermoelectric element according to Claim 1, wherein the thin film of p-type thermoelectric material and the thin film of n-type thermoelectric material are electrically connected by one of the following methods:

bringing one end portion of the thin film of p-type thermoelectric material into direct contact with one end portion of the thin film of n-type thermoelectric material;

bringing one end portion of the thin film of p-type thermoelectric material into contact with one end portion of the thin film of n-type thermoelectric material via an electrically conductive material;

bringing one end portion of the thin film of p-type thermoelectric material into direct contact with one end portion of the thin film of n-type thermoelectric material and covering the contact portion with an electrically conductive material.

Claim 4 (Original): The thermoelectric element according to Claim 1, wherein the thin film of p-type thermoelectric material and the thin film of n-type thermoelectric material are formed on the same surface or on different surfaces of the electrically insulating substrate.

Claim 5 (Original): The thermoelectric element according to Claim 1, wherein the electrically insulating substrate is a substrate comprising a plastic material.

Claim 6 (Original): The thermoelectric element according to Claim 1, wherein thermoelectromotive force is at least 60 μV/K in a temperature range of 293 K to 1073K.

Claim 7 (Original): The thermoelectric element according to Claim 1, wherein electrical resistance is 1 KΩ or lower in a temperature range of 293 K to 1073 K.

Claim 8 (Original): A thermoelectric module comprising a plurality of the thermoelectric elements of Claim 1, wherein the thermoelectric elements are electrically connected in series such that an unconnected end portion of a p-type thermoelectric material of one thermoelectric element is electrically connected to an unconnected end portion of an n-type thermoelectric material of another thermoelectric element.

Claim 9 (Original): A thermoelectric conversion method comprising positioning one end of the thermoelectric module of Claim 8 at a high-temperature portion and positioning the other end of the module at a low-temperature portion.